

OC
12/3/98

BAR CART

Summary of the Invention

This invention relates to a bar cart. More particularly, this invention relates to a portable bar cart of knock-down construction.

Heretofore, various types of bar carts and serving carts have been known for indoor use as well as outdoor use. One typical bar/serving cart has been constructed of a skeletal frame having a table top surface which is supported on three or more legs as well as with a pair of wheels for moving the cart from place to place. Handles have also been provided which attach to either a frame surrounding the table top or to the legs in order to enable movement of the cart from place to place. Usually, these carts have a limited table area for serving purposes and have not been particularly sturdy when being moved from place to place especially if moved over a rough surface.

Carts for outdoor use have been known which employ a more robust skeletal frame which can be wheeled from place to place via handles formed with the frame. Typically, these carts are made of unitary construction, that is to say, the individual elements of the frame are welded or otherwise fixed together using tools in a permanent manner. As such, these carts have been relatively bulky for shipment purposes and/or have not been readily storable in a small compact space.

Objects of the Invention

It is an object of the invention to provide a bar cart of robust construction which can be disassembled for ease of storage as well as assembled from a delivered condition.

It is another object of the invention to provide a bar cart of knock-down construction.

It is another object of the invention to provide a bar cart which is of rigid construction and which is aesthetically pleasing.

1 It is another object of the invention to provide a bar cart which can be assembled from a
2 minimum of parts.

3 It is another object of the invention to provide a cart which has a substantial serving area,
4 which is easily moved and which has a pleasing appearance.

5 Briefly, the invention provides a bar cart which is comprised of a body frame, a pair of
6 leg frames, each of which is releasably connected to the body frame at opposite sides and a table
7 top which is releasably connected to and across the leg frames in vertically spaced relation to the
8 body frame.

9 In addition, connecting means are integrated in the body frame of each leg frame for
10 releasably connecting each leg frame to the body frame. Each such connecting means includes a
11 vertical plate having a pair of vertical spaced slots on one of the leg frames and the body frame
12 and a pair of vertically disposed spacers on the other one of the leg frames and body frame with
13 the spacers slidably received in the slots of the plate.

14 The body frame of the cart is a skeletal structure and is of rectangular box-shape. As
15 such, the body frame is particularly robust and rigid. In this respect, the body frame includes
16 four rectangular frames each of which defines one side of the body frame with each rectangular
17 frame being vertically disposed. In addition, the vertically disposed rectangular frames are
18 interconnected to each other and spaced from each other via the spacers of the connecting means.

19 Each leg frame is constructed to have a pair of horizontal outwardly disposed arms on
20 which the table top rests. In addition, one of the leg frames is provided with a pair of wheels to
21 facilitate movement of the assembled bar cart from place to place. The table top includes a

1 peripheral edge of U-shaped cross-section which slidably receives an end of each arm of a
2 respective leg frame in a slide fit manner so as to secure the table top to the leg frames.

3 The body frame is also provided with a pair of guides on two opposite sides in order to
4 define a recess with an end frame to receive a cooler or the like therein. A horizontally disposed
5 shelf is also removably mounted in the body frame. Depending upon the size and shape of a
6 cooler mounted on the bar cart, the cooler may be seated directly on the shelf and held in place
7 by the guides. Alternatively, the cooler may be provided with handles which project from
8 opposite ends so as to be supported on upper surfaces of the body frame without resting directly
9 on the shelf.

10 The individual components of the bar cart, namely the body frame, two leg frames and
11 table top are of a construction to be shipped in a compact flattened condition in a shipping carton
12 and to be assembled without the need for tools. The leg frames are simply interfitted with the
13 body frame and the table top is manipulated into place on top of the arms of the leg frames in an
14 inter-fitted manner. Once assembled, the bar cart is of robust rigid construction.

15 The table top bar cart provides a relatively large surface area for receiving trays, plates,
16 glasses, bottles, containers and the like. Further, because the body frame is of robust rigid
17 construction, the entire bar cart, when assembled has a sufficiently rigid characteristic so as to be
18 wheeled from place to place without detrimental vibration. That is to say, the bar cart able to
19 support various items on the table top during transport without a sense of looseness in the cart.

20 The cart may also be provided with a fabric strip peripherally about the leg frames and at
21 least one side of the body frame to screen off any items which are placed on the shelf under the
22 table top. Any suitable means may be provided to secure the opposite ends of the fabric strip in

order to hold the fabric strip about the leg frames and body frame. For example, use may be made of a strap which extends between opposite ends of the fabric strip.

Brief Description
These and other objects and advantages of the invention will become more apparent from the following detailed description taking in conjunction with the accompanying drawings wherein:

Fig. 1 illustrates a perspective view of an assembled bar cart and cooler in accordance with the invention;

Fig. 2 illustrates a side view of the bar cart and cooler of Fig. 1;

Fig. 3 illustrates an end view of the bar cart of Fig. 1;

Fig. 4 illustrates a bottom view of the bar cart of Fig. 1;

Fig. 5 illustrates an exploded view of the bar cart of Fig. 1;

Fig. 6 illustrates an end view of the body frame of the bar cart; and

Fig. 7 illustrates a view of the bar cart similar to Fig. 1 with a fabric strip disposed about three sides of the bar cart in accordance with the invention.

Detailed Description
Referring to Fig. 1, the bar cart 10 is constructed in a knock-down manner with a minimum of components. In this respect, the bar cart 10 includes a body frame 11, a pair of leg frames 12, 13 and a table top 14. In addition, the bar cart 10 is provided with a shelf 15 which is removably mounted in the body frame 11. Still further, one leg frame 13 is provided with a pair of wheels 16 to facilitate movement of the bar cart 10 along a surface.

Referring to Fig. 5, the body frame 11 is a box-shaped skeletal structure having a first pair of parallel vertically disposed rectangular frames 17 defining a pair of sides of the body

1 frame 11 and a second pair of parallel vertically disposed rectangular frames 18, 19 defining a
2 pair of ends of the body frame 11.

3 The rectangular frames 17, 18, 19 of the body frame 11 are constructed in a similar
4 manner except for size. For example, as shown in Figs. 5 and 6, the end frame 18 is formed of a
5 single tube which is shaped into a rectangle with one end of the tube telescoping into the
6 opposite end of the tube in a manner not shown. The remaining frames 17, 19 are made in a
7 similar manner. Each frame 17, 18, 19 is made of aluminum or any other suitable manner and is
8 provided with a powder-coated paint.

9 Referring to Fig. 4, a shelf support 20 is fixedly secured to the bottom of the body frame
10 11, for example by welding or any other suitable technique to support the shelf 15. As indicated,
11 the shelf support 20 is formed by a pair of transverse bars 21, each of which is secured to and
12 across the side frames 17 and a pair of longitudinal bars 22, each of which is fitted at the ends
13 into slots (not shown) of the transverse bars 21.

14 The shelf support 20 may, of course, be made of any other suitable shape and
15 construction.

16 Referring to Fig. 5, the upper part of the body frame 11 includes a transverse bar 23
17 which extends across and is interconnected to the side frames 17 as well as a plurality, for
18 example three, rods 24 which extend between the transverse bar 23 and the end frame 18. The
19 bar 23 is spaced from the end frame 18 and the rods 24 are spaced apart so as to define racks or
20 compartments for receiving bottles and the like which are mounted on the shelf 15.

21 A pair of guides 25 are also mounted on the upper part of the side frames 17 at opposite
22 sides in order to define a recess with the end frame 19, for example to receive a cooler 26 therein.

1 As indicated in Figs. 1 and 2, the cooler 26 rests on the shelf 15 while being restrained against
2 movement by the guides 25 and the end frame 19. Alternatively, the cooler 26 may be provided
3 with projecting handles 27 which are located such that the cooler 26 can be supported via the
4 handles 27 directly on the upper surfaces of the side frames 16, 17 without resting on the shelf
5 plate 15.

6 As illustrated in Figs. 5 and 6, a pair of vertically disposed spaces 28 are secured between
7 each pair of adjacent frames 17, 18 19 of the body frame 11 to space the side frames 17 and end
8 frames 18, 19 apart. In addition, a rivet 29 passes through each two adjacent frames and each
9 spacer 28 in order to secure the side frames 17 and end frames 18, 19 into a rigid construction.

10 Referring to Fig. 5, one leg frame 13 has a pair of vertical legs 30, 31 which are
11 interconnected by an inverted U-shaped bar 32. In this respect, a pair of rivets (not shown) or the
12 like are passed through the respective legs 30, 31 and bar 32 in order to secure the pieces together
13 in a permanent manner.

14 Each legs 30, 31 of the leg frame 13 carriers a plate 34 which is sandwiched between the
15 leg 30, 31 and the U-shaped bar 32 and permanently fixed in place by rivet 33 which pass
16 through the leg 30, 31 plate 34 and bar 32. Each plate 34 is vertically disposed and has a pair of
17 slots 35 each of which has a horizontal entry portion and an angularly downwardly directed
18 portion. Each slot 35 is sized to receive a spacer 28 of the body frame 11 in order to connect the
19 leg frame 13 to the body frame 11 as indicated in Fig. 1. The slots 35 are spaced apart at the
20 same spacing as the spacers 29.

1 After the spacers 29 on one end of the body frame 11 are inserted into the horizontal
2 portions of the respective slots 35, the body frame 11 is pushed downwardly so as to more
3 securely engage the body frame 11 with the leg frame 13.

4 As illustrated in Fig. 5, the leg frame 13 carries an axle 36 at the lower end in fixed
5 relation. The wheels 16 are mounted in rotatable fashion on the ends of the axle 36 and are held
6 thereon by hub caps 37 in suitable manner as is known.

7 Each leg 30, 31 of the leg frame 13 is provided with a horizontal outwardly disposed arm
8 38, 38' upon which the table top 14 is able to rest. The arm 38' on one leg 31 is longer than the
9 other arm 38 and extends a greater horizontal distance than the arm 38 on the other leg 30 so that
10 the table top 14 projects a greater distance from the leg frame 13 on that side. In this way, the
11 table top 14 provides a shelf. By way of example, the arm 38' may extend 6 inches from the
12 side of the leg 31 while the arm 38 extends 2 1/2 inches from the side of the leg 30. The provision
13 of a shelf to at least one side of the bar cart 10 permits a person to stand close to the table top 14
14 without stepping on the bar cart 10 and also permits a bar stool to be placed adjacent to the table
15 top 14 for seating purposes.

16 As illustrated in Fig. 4, the leg frames 12, 13 and, particularly, the wheel 16, are disposed
17 within the projected plane of the table top 14. The table top 14 is provided with a peripheral
18 edge 39 of U-shaped cross-section to slidably receive an end of each arm 38 of the leg frames 12,
19 13 therein.

20 As illustrated in Fig. 1, the wheels 16 are to the outside of the leg frame 13.

21 Referring to Fig. 5, the wheelless leg frame 12 is of similar construction as the opposite
22 wheeled leg frame 13 and like reference characters indicate like parts as above. Since the leg

1 frame 12 does not include wheels, the legs 30', 31' are of greater length than the legs 30, 31 of the
2 opposite leg frame 13 to extend to a support surface. In addition, as shown in Fig. 3, the leg 31'
3 which has the longer arm 38' is provided with an offset portion 39 at the lower end to further
4 stabilize the cart 10 against tipping. The offset is approximately equal to the length of the shorter
5 arm 38, that is, about 2 ½ inches.

6 The leg frame 12 is mounted on the body frame 11 in a similar fashion as the opposite leg
7 frame 13.

8 Referring to Fig. 5, in order to initially assemble the bar cart 10, the body frame 11 is first
9 connected to one leg frame 12, 13 and then to the other leg frame 12, 13. For example, the
10 spacers 29 adjacent the end frame 18 are first inserted into the slots 35 of the plates 34 on the leg
11 frame is with the axle 36. Next, the spacers 29 at the opposite end frame 19 (the end with the
12 bottle rack) are inserted into the slots 35 of the plates 34 on the wheeled leg frame 13. The body
13 frame 11 is then pressed downwardly relative to the leg frames 12, 13 in order to secure a firm
14 connection between the spacers 29 and the plates 34.

15 Next, the wheels 16 are mounted on the axle 36 and fixed in place by the hub caps 37 for
16 rotation about the axle.

17 Next, the table top 14 is mounted on the arms 38 of the leg frames 12, 13 to lock the
18 frames 11, 12, 13 together in a rigid manner. In this respect, the U-shaped edge 31 on one side of
19 the table top 14 is fitted under the arms 38 on one side of the bar cart and then the opposite side
20 is snapped into place over the arms 38 on the opposite side of bar cart. As indicated in Fig. 1, the
21 ends of the table top 14 project beyond the leg frames 12, 13 in order to provide a shelf on those
22 ends of the bar cart 10 in addition to the shelf provided to the one side of the bar cart 10.

1 The table top 14 may be made of various materials. For example, the table top 14 may be
2 provided with an insert 40 of plastic or tempered glass with various means provided for
3 mounting the insert 40 within the peripheral edge 39.

4 The shelf 15 which is used in the bar cart 10 may be of any suitable material such as
5 plastic, tempered glass and the like.

6 Because of the inherent rigidity of the parallelogram arrangement of each side frame 17
7 and end frame 18, 19, the body frame 11 is of particularly rigid construction to resist bending and
8 twisting. Further, the height of the body frame 11 further enhances the dimensional stability of
9 the bar cart 10. By way of example, the body frame 11 has a height of 10 inches, a width of 21
10 inches and a length of 32 inches. The rigidity of the body frame 11 is further enhanced by the
11 shelf support 20. The height of the bar cart 10 to the surface of the table top 14 is 38 inches. The
12 surface area provided by the table top 14 is 30 inches x 48 inches.

13 Referring to Fig. 7, the bar cart 10 is provided with a fabric strip 41 which is disposed
14 peripherally about the leg frames 12, 13 and the shelf side of the body frame 11. As illustrated,
15 the fabric strip 41 is sized to hide the items placed on the shelf 15 while at the same time having
16 spaced apart ends which permit access through one side of the bar cart 10 to the items on the
17 shelf 15. Typically, the skirt 41 is applied to the bar cart 10 so that the open side is on the side
18 opposite the shelf side so that a bartender can readily obtain access to the shelf 15 while serving a
19 person seated or standing on the opposite side.

20 Suitable means are also secured to opposite ends of the fabric strip 41 to hold the strip 41
21 about the bar cart 10. For example, this means may be in the form of a strap 42 having ends
22 secured as by stitching to the fabric 40 and a buckle arrangement 43 to secure the free ends of the

1 strap 42 together. The strap 42 may be made of a resilient material to impart a tension force in
2 the fabric strip 41 and thereby stretch the fabric 41 to obtain a smooth appearance in the fabric
3 strip 41.

4 The invention thus provides a bar cart of knock-down construction which can be readily
5 assembled from the respective pieces without the need for tools. Likewise, the bar cart can be
6 disassembled into the individual components without the need of tools. Further, the components
7 of the bar cart can be readily stacked for storage within a minimum of space, for example with
8 the leg frames 12, 13, shelf 15 and table top 14 laid flat on each other and the body frame 11 on
9 top of these components.

10 The invention further provides a bar cart which is readily portable once assembled via the
11 wheels and which is easily shipped when disassembled and placed in a shipping carton or the
12 like.

13 The invention further provides a bar cart which can be readily transported from place to
14 place during use. Further, the bar cart provides a substantial storage area, for example for
15 receiving a cooler, bottles, containers and the like as well as a generous tempered glass top
16 serving area.